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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/840,475	04/23/2001	Michael J. Sullivan	P-4628-D1-1-C1-1	5756

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EXAMINER

BUTTNER, DAVID J

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 04/17/2003

11

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/840,475

Applicant(s)

SULLIVAN ET AL.

Examiner

David Buttner

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 and 19-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17, 19-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-17 and 19-28 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Requiring the core layer to be free of any density adjusting filler is not in the specification as filed. In fact, applicants own examples (Table 20) include ZnO in that layer. ZnO qualifies as a density adjusting filler according to applicant (Table 19; page 54, line 27).

Claims 1-3, 5-7, 9, 12-14, 16, ~~19-23~~ and 25 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over the Moriyama '396 Patent.

Moriyama exemplifies (Table 5 and 6) four layer golf ball having tungsten in the center core. The outer cover has a shore D of 71-72. The layer immediately inside the outer cover has a shore C of 54-57. These shore C values convert to a lower numerical value on the shore D scale (see applicant's own correlation col. 5, line 54 of US 6057403).

Although these examples have ionomer rather than urethane outer covers, Moriyama (col. 3, line 62) does teach the thermoplastic outer cover can be polyurethane.

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Claims 1-3, 6-15, 17, 19-22, 26 and 28 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hayashi '460 Patent.

Hayashi exemplifies (No. 3) four layer golf balls having barium sulfate in the center core and a urethane outer core. The outer cover is significantly softer than the inner cover.

Claims 19-22, 26 and 28 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over the Herbert '172 Patent.

Herbert discloses a four-layer golf ball (Fig. 1). The outer cover is a thermo-set polyurethane (col. 4, line 67). The outer cover is significantly softer than the inner cover (claims 3 and 5). The thicknesses of the inner and outer cover (claim 15) are within applicant's range. Density adjusting fillers can be present in the core (col. 7, line 19). The reference does not clearly suggest placing fillers in the mantle (i.e. outer core). It would have been obvious (if not considered anticipatory) have the fillers in the center core only.

Claims 19-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Moriyama '396 or Hayashi '460 or Herbert '172 in view of Rajagopalan ⁰⁴⁹ '460 or Sullivan '553.

The three primary references suggest high-density fillers in their cores, but do not suggest all the species named by applicant.

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Rajagopalan (col. 7, line 25) and Sullivan (col. 3, line 21) suggest titanium, tungsten etc all function as density adjusting fillers in golf ball cores. It would have been obvious to use any of the listed fillers in the cores of Moriyama/Hayashi/Herbert to adjust their density.

Claims 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Hayashi '460 Patent in view of Sullivan '119.

Hayashi does not explain what molding technique was used to place the urethane cover in the ball. Compression molding, reaction injection molding etc (col. 23, line 12 of Sullivan) are all well-known molding techniques for forming golf ball covers. Reaction injection molding is particularly useful for urethanes (claim 14 of Sullivan).

It would have been obvious to use any common molding technique to place the urethane cover on Hayashi's ball.

Claims 1-15, 19-23, 25, 26 and 28 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over the Melvin'562 Patent.

Melvin discloses four layer golf balls. The cover can be polyurethane (col. 18 lines 37-53). The inner core is thermoplastic (col. 5, line 32) and contains tungsten filler (col. 7, line 55).

The inner core is required to have a higher specific gravity than the outer core (col. 7, lines 58-62). This suggests placing the filler in the inner core only.

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Applicant's arguments filed January 23, 2003 have been fully considered but they are not persuasive.

Applicant argues Moriyama does not suggest polyurethane in the outer cover.

This is not convincing. Moriyama (col. 3, line 63) does suggest thermoplastics such as urethanes as an alternative to ionomers. Thermoplastics are the designation for Moriyama's cover (col. 2, line 44). The fact that ionomers might be the preferred outer cover does not defeat the rejection (MPEP 2123).

Applicant argues Hayashi is directed towards placing the filler in the enclosure layer rather than the inner core.

This ignores example 3 of the reference. There is no filler in the enclosure layer. Barium sulfate and ZnO are present in the inner core. Both qualify as applicant's density adjusting filler (applicant's Table 19).

Applicant argues Herbert does not have a softer outer cover and a hard inner cover.

This is not convincing. Claims 3 and 5 of the reference call for such hardness.

Applicant argues Rajagopalan '049 and Sullivan '553 do not exhibit the structure claimed.

These references are merely relied on to teach alternative species of golf ball filler. The primary references provide the ball's overall structure.

Applicant argues that Hayashi/Sullivan combination does not suggest that the outer core is free of filler.

As explained above, Hayashi's example 3 shows such a structure.

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Applicant argues Melvin does not suggest keeping the outer core free of density adjusting filler.

Melvin does suggest low moment of inertia balls have an inner core with its density adjusted upward compared to the outer core (col. 7, lines 58-62). One of ordinary skill would recognize this as a suggestion of adding high-density filler to the inner core and adding no filler to the outer core.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Buttner whose telephone number is (703) 308-2403. The examiner can normally be reached on weekdays from 10 a.m. to 5 p.m..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Dawson can be reached on (703) 308-2340. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 305-7115 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

DAVID J. BUTTNER
PRIMARY EXAMINER

D. Buttner/dh
April 16, 2003

A handwritten signature in black ink, appearing to read "David Buttner", is written over the typed name and title.